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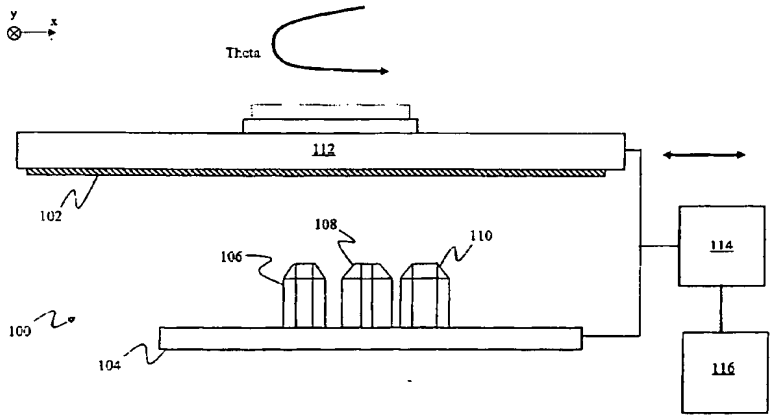
(54) Title: ADAPTIVE ELECTROPOLISHING USING THICKNESS MEASUREMENTS AND REMOVAL OF BARRIER AND SACRIFICIAL LAYERS



(57) Abstract: A metal layer formed on a semiconductor wafer is adaptively electropolished. A portion of the metal layer is electropolished, where portions of the metal layer are electropolished separately. Before electropolishing the portion, a thickness measurement of the portion of the metal layer to be electropolished is determined. The amount that the portion is to be electropolished is adjusted based on the thickness measurement. A metal layer formed on a semiconductor wafer is polished, where the metal layer is formed on a barrier layer, which is formed on a dielectric layer having a recessed area and a non-recessed area, and where the metal layer covers the recessed area and the non-recessed areas of the dielectric layer. The metal layer is polished to remove the metal layer covering the non-recessed area. The metal layer in the recessed area is polished to a height below the non-recessed area, where the height is equal to or greater than a thickness of the barrier layer.

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